

## ABSTRACT OF THE DISCLOSURE

A detection apparatus for use in a touch pad, for detecting the coordinates indicated by a user on the touch pad and the behavior of the user on the touch pad. The touch pad includes an X-layer and a Y-layer, and the X- and Y-layers are planar resistors. The detection apparatus has a sleep mode and an operative mode. When the user touches the touch pad, the X- and Y-layers are electrically coupled at a touch point. The detection apparatus includes a central processor, a coordinate detecting unit, an analog-to-digital converting unit, and a wake-up unit. The coordinate detecting unit is used to determine and output an X-coordinate voltage and a Y-coordinate voltage, wherein the X- and Y-coordinate voltages correspond to the touch point. The analog-to-digital converting unit is used to convert the X- and Y-coordinate voltages into an X-coordinate and a Y-coordinate, and to output the X- and Y-coordinate. The central processor is used to control the coordinate detecting unit and the analog-to-digital converting unit. When the detection apparatus is in the sleep mode and the user touches the touch pad, the wake-up unit outputs a wake-up signal of a first level so that the detection apparatus changes from the sleep mode to the operative mode; then, the central processor sends the wake-up control signal so that the wake-up signal changes to a second level.

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